

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of modifying a heart valve of a patient, comprising:

advancing a first catheter through the patient's vasculature into the heart from a vascular access point remote from the heart while the heart remains beating, the catheter having a first structure releasably coupled thereto;

using the first catheter to deploy the first structure from the catheter directly on an annulus of the heart valve, the first structure adapted to modify the annulus so as to reduce regurgitation in the heart valve; and

in combination with deploying the first structure from the first catheter directly on the annulus of the heart valve, using graspers on the first catheter to grasp the leaflets of the heart valve while the heart remains beating; and

further using the first catheter to attach a staple directly on the leaflets, wherein the staple attaches opposed points on the valve leaflets of the heart valve together so as to reduce regurgitation in the heart valve, and wherein the heart remains during attachment of the staple to the leaflets.
2. (Previously presented) A method as in claim 1, wherein the first structure comprises a ring that at least partially surrounds the annulus.
3. (Original) A method as in claim 1, wherein modifying the annulus comprises circumferentially shortening the annulus.

4. (Previously presented) A method as in claim 1, wherein deploying the first structure comprises deploying the first structure such that the first structure mounts onto an atrial side of the annulus.

5. (Original) A method as in claim 1, wherein modifying the annulus comprises tightening the annulus.

6-9. (Canceled)

10. (Original) A method as defined in claim 1, wherein advancing the catheter comprises advancing the catheter across an interatrial septum of the heart.

11. (Currently Amended) A method of modifying a heart valve of a patient, comprising:

advancing a first catheter through the patient's vasculature into the heart from a vascular access point remote from the heart, the first catheter having an annuloplasty device releasably coupled thereto;

using the first catheter to implant the annuloplasty device from the first catheter directly on an annulus of the heart valve to modify the annulus of the heart valve and reduce regurgitation in the heart valve while the heart remains beating;

in combination with implanting an annuloplasty device from the catheter directly on an annulus of the heart valve, using the first catheter to grasp the leaflets of the heart valve while the heart remains beating; and

further using the first catheter to attach a structure directly to a first valve leaflet and a second valve leaflet of the heart valve so as to reduce regurgitation in the heart valve, wherein the heart remains beating during attachment of the structure to the leaflets.

12. (Original) A method as defined in claim 11, wherein the spatial relationship between the first and second valve leaflets is modified by attaching opposed points on or along the valve leaflets together.

13. (Original) A method as defined in claim 11, wherein the spatial relationship between the first and second valve leaflets is modified by suturing, clipping, stapling, riveting, gluing, or fusing opposed points on or along the valve leaflets together.

14. (Original) A method as defined in claim 11, wherein the spatial relationship between the first and second valve leaflets is modified by linking opposed chordae of the valve leaflets together to cause the valve leaflets to move toward one another.

15. (Original) A method as defined in claim 14, wherein linking comprises suturing, capturing, fusing, clipping, or gluing the opposed chordae.

16. (Original) A method as defined in claim 11, wherein the spatial relationship between the first and second valve leaflets is modified by drawing opposed points of papillary muscles together to cause the valve leaflets to move toward one another.

17. (Original) A method as in claim 11, wherein modifying the annulus comprises circumferentially shortening the annulus.

18. (Original) A method as in claim 11, wherein the annuloplasty device is deployed on an atrial side of the annulus.

19. (Original) A method as in claim 11, wherein modifying the annulus comprises tightening the annulus.

20. (Original) A method as defined in claim 11, wherein advancing the catheter comprises advancing the catheter across an interatrial septum of the heart.

21. (Currently Amended) A method of modifying a heart valve of a patient, comprising:

advancing a first catheter through the patient's vasculature into the heart from a vascular access point remote from the heart, the first catheter having an annuloplasty device releasably coupled thereto;

using the first catheter to implant the annuloplasty device from the catheter directly on an annulus of the heart valve while the heart remains beating to effect a geometric change in an annulus of the heart valve so as to reduce regurgitation in the heart valve; and

in combination with effecting a geometric change in an annulus of the heart valve, using the first catheter to grasp the leaflets of the heart valve while the heart remains beating; and

further using the first catheter to coapt leaflets of the heart valve by attaching a structure from the first catheter directly to the leaflets so as to reduce regurgitation in the heart valve, wherein the heart remains beating while the first structure is attached directly to the leaflets.

22. (Canceled)

23. (Original) A method as in claim 21, wherein effecting a geometric change in the annulus comprises circumferentially shortening the annulus.

24. (Previously presented) A method as in claim 21, wherein the annuloplasty device is deployed on an atrial side of the annulus.

25. (Original) A method as in claim 21, wherein effecting a geometric change in the annulus comprises tightening the annulus.

26. (Original) A method as defined in claim 21, wherein coapting the leaflets comprises suturing, clipping, stapling, riveting, gluing, or fusing opposed points on or along the valve leaflets together.

27. (Currently Amended) A method of modifying a heart valve of a patient, comprising:

advancing a catheter through the patient's vasculature into the heart from a vascular access point remote from the heart, the catheter having an annuloplasty device releasably coupled thereto;

implanting the annuloplasty device on the annulus of the heart valve while the heart remains beating so that the entire annuloplasty device is positioned entirely on an atrial side of the annulus of the heart valve to modify the annulus of the heart valve and reduce regurgitation in the heart valve;

in combination with implanting an annuloplasty device at the heart valve, holding leaflets of the heart valve together at one or more adjacent locations in a manner that reduces regurgitation in the valve wherein the leaflets are held together during the same procedure in which the annuloplasty device is implanted.

28. (Original) A method as in claim 27, wherein the annuloplasty device comprises a ring that at least partially surrounds the annulus.

29. (Original) A method as in claim 27, wherein modifying the annulus comprises circumferentially shortening the annulus.

30. (Canceled)

31. (Original) A method as in claim 27, wherein modifying the annulus comprises tightening the annulus.

32. (Original) A method as defined in claim 27, wherein holding the leaflets of the valve together comprises permanently attaching opposed points on or along the valve leaflets together.

33. (Original) A method as defined in claim 27, wherein holding the leaflets of the valve together comprises suturing, clipping, stapling, riveting, gluing, or fusing opposed points on or along the valve leaflets together.

34. (Previously presented) A method as defined in claim 27, wherein holding the leaflets of the valve together is accomplished by linking opposed chordae of the valve leaflets together using a device that directly contacts the opposed chordae.

35. (Original) A method as defined in claim 34, wherein linking comprises suturing, capturing, fusing, clipping, or gluing the opposed chordae.